

M1 THRU M7

Features

- For surface mounted application
- Low forward voltage drop
- High current capability
- High reliability
- Classification Rating 94V- 0

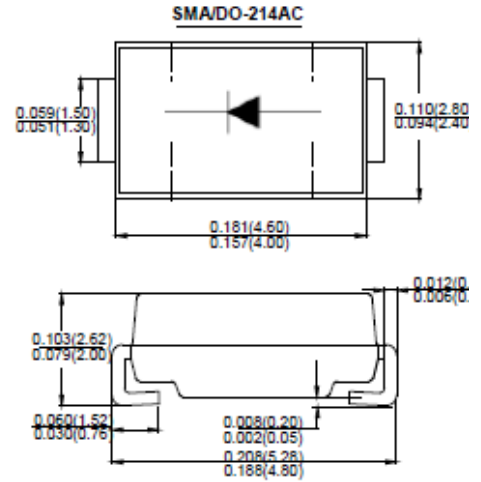
Mechanical Data

Case: molded plastic SMA/DO-214AC

Polarity: Color band denotes cathode end

Mounting position: Any

Terminals: Solder plated, solderable per MIL-STD-750,
Method 2026 guaranteed



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load, derate current by 20%

Type Number	Symbol	M1	M2	M3	M4	M5	M6	M7	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @ $T_L = 100^\circ C$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.0							V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$	I_R	5.0 200							μA
Typical junction capacitance (NOTE 1)	C_j	8							pF
Typical thermal resistance (NOTE 2)	R_{QJA}	75							$^\circ C/W$
Operating junction and storage temperature range	T_j, T_{STG}	-55 to +150							$^\circ C$

Note:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. 8.0mm² (.013mm thick) land areas.

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Characteristic Curves

Fig. 1 - Forward Current Derating Curve

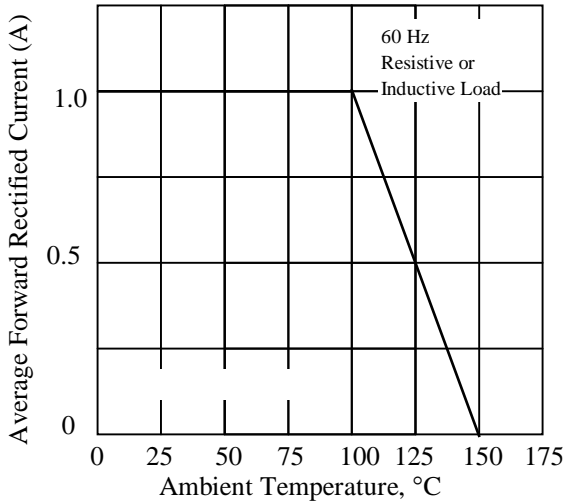


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

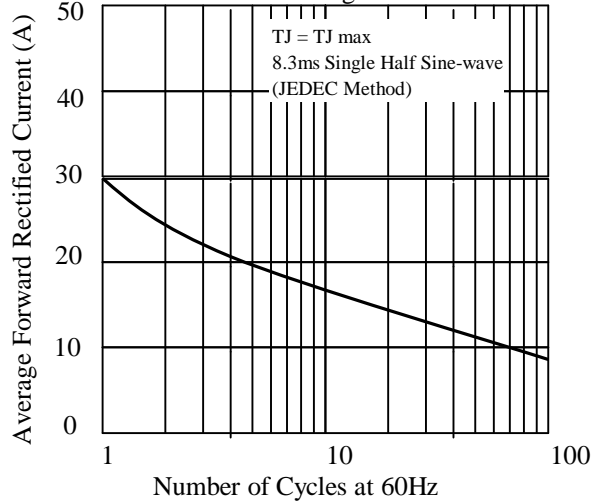


Fig. 3 - Typical Instantaneous Forward Characteristics

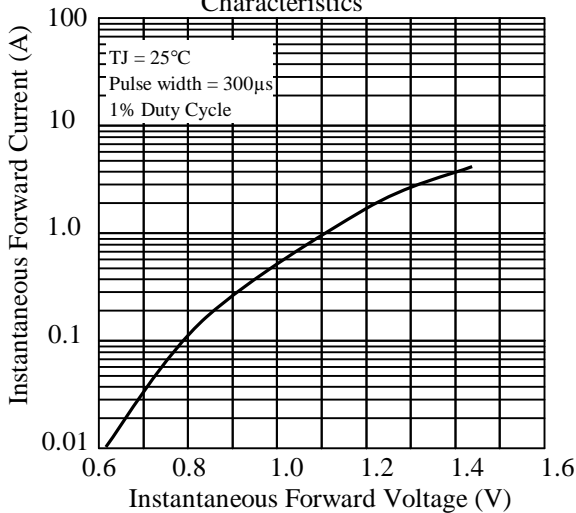


Fig. 4 - Typical Reverse Characteristics

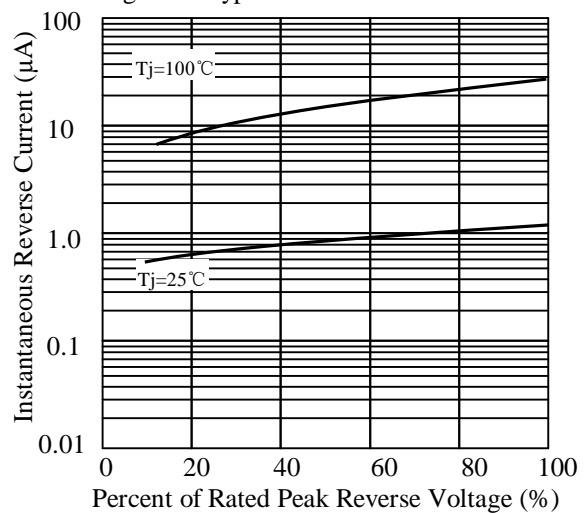


Fig. 5 - Typical Junction Capacitance

